

IAP3 Rec'd PCT/PTO 15 DEC 2005

PATENT Case No. 21178YP

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Xiao, et al.

Serial No. 10/549,425 ✓

Filed: September 15, 2005

For: PROCESS FOR THE PREPARATION OF CHIRAL  
BETA AMINO ACID DERIVATIVES BY ASYMMETRIC  
HYDROGENATION

Art Unit: \_\_\_\_\_

Examiner: \_\_\_\_\_

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR 1.97

Sir:

1. In compliance with 37 C.F.R. 1.97, submitted on the attached form herewith is a list of patents, publications or other information which are requested to be made of record in this application. This Information Disclosure Statement is not an admission that any patent, publication or other information referred to herein is "prior art" for this invention. In accordance with 37 C.F.R. 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. 1.56(b).

2. In accordance with 37 C.F.R. 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made.

3. Applicants respectfully request that the Examiner initial the attached form after reviewing the pertinence of each reference.

4. Pursuant to 37 C.F.R. 1.98 (a)(2)(ii), copies of each cited U.S. patent and each U.S. patent application publication are not enclosed herewith.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on the date appearing below.

MERCK &amp; CO., INC.

By Denise BrownDate 12-12-2005

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /KP/

**INFORMATION DISCLOSURE STATEMENT**

5. Pursuant to 37 C.F.R. 1.98(d), copies of references listed on the attached form that were submitted to or cited by the Office in a related application upon which the instant application relies for an earlier filing date under 35 U.S.C. 120 are not enclosed. Related application(s) in which references were submitted to or cited by the Office are as follows:

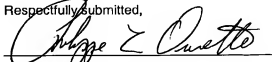
RELATED APPLICATION		
U. S. SERIAL NUMBER	FILING DATE	MERCK CASE

If this is inconvenient, additional copies will be submitted upon request.

6. In accordance with 37 C.F.R. 1.97, (check one)

- ☒ the attached information is filed within three months of the filing date of the captioned case.
- ☐ the attached information is filed more than three months after the filing date but prior to the mailing of a first Office Action on the merits.
- ☐ the attached information is filed before the mailing of a first Office action after the filing of a request for continued examination under §1.114.
- ☐ the attached information is being filed more than three months after the filing date and after the mailing of a first Office Action on the merits, but before the mailing date of a Final Action, Notice of Allowance, or an action that otherwise closes prosecution in the application. The enclosed authorization is therefore given to charge Deposit Account No. 13-2755 for the fee required under 37 C.F.R. 1.17(p).
- ☐ each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement.
- ☐ each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart application *and this communication was not received by any individual designated in §1.56(c) more than thirty days prior to the filing of the information disclosure statement.*
- ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated under 37 C.F.R. 1.56(c) more than three months prior to the filing of this Statement.

Respectfully submitted,



By: Philippe L. Durette

Attorney \_\_\_\_\_ For Applicant(s)

Reg. No. 35,125

MERCK & CO., INC.

Patent Dept., RY60-30

P.O. Box 2000

Rahway, N.J. 07065-0907

(732)594-4568

Date: December 12, 2005

**ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /KP/**

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(use as many sheets as necessary)

<b>Application Number</b>	10/549,425
<b>Filing Date</b>	September 15, 2005
<b>First Named Inventor</b>	Xiao, et al.
<b>Group Art Unit</b>	
<b>Examiner Name</b>	
<b>Attorney Docket Number</b>	21178YP

Sheet	1	of	2
-------	---	----	---

[illegible][illegible]

Examiner Signature	/Karl Puttlitz/
--------------------	-----------------

Date Considered	04/13/2008
-----------------	------------

\*Examiner: Initial if reference considered, ~~initial~~ if not citation is in performance with MPPI 609. Draw for thorough citation if not in performance and not considered. Include copy of this form with next communication if applicable.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /KP/

SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450. Computer generated form "IDS Form" (IDS Folder), Merck & Co., Inc., 7/12/2005

## INFORMATION DISCLOSURE

(use as many sheets as necessary)

**COMPLETE IF KNOWN**

<b>Filing Date</b>	September 15, 2005
--------------------	--------------------

Group Art Unit

Examiner Name

Attorney Docket Number 21178YP

Sheet

2

of

2

### NON PATENT LITERATURE DOCUMENTS

Examiner  
Initials\*Cite  
No.

Include name of the author, title, date, page(s), volume-issue number(s) and place of publication.

8. Zhu, et al., "Highly efficient Asymmetric Synthesis of  $\beta$ -Amino Acid Derivatives via Rhodium-Catalyzed Hydrogenation of  $\beta$ -(Acylamino)acrylates", *J. Org. Chem.*, Vol. 64, pp. 6907-6910 (1999).

9. Lubell, et al., "Enantioselective Synthesis of  $\beta$ -Amino Acids based in BINAP-Ruthenium(II) Catalyzed Hydrogenation", *Tetrahedron Asymmetry*, Vol. 2, No. 7, pp. 543-554 (1991).

10. Hsiao, et al., "Highly Efficient Synthesis of  $\beta$ -Amino Acid Derivatives via Asymmetric Hydrogenation of Unprotected Enamines". *J. Am. Chem. Soc.*, Vol. 126, pp. 9918-9919 (2004).

11.	Hayashi, et al. "Asymmetric Synthesis Catalyzed by Chiral Ferrocenylphosphine-Transition Metal Complexes. I. Preparation of Chiral Ferrocenylphosphines", <i>Bull. Chem. Soc. Jpn.</i> , Vol. 53, pp. 1138-1151 (1980).
-----	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Examiner  
Signature

/Karl Puttlitz/

Date Considered

04/13/2008

\*Examiner: Initial if reference considered when application is in performance with MFPE 609. ~~Draw line through citation if not in performance and not considered.~~ Include copy of this form with next communication to applicant.

SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450. Computer generated form "IDS Form" (IDS Folder), Merck & Co., Inc., -7/12/2005

Computer generated form \* IDS Form\* (IDS Folder), Merck & Co., Inc., -7/12/2005